COMM-TERM II

ADVANCED COMMUNICATIONS TERMINAL PROGRAM FOR COMMODORE 64

- AUTO OPERATION/HOST
  LOGON, DOWNLOAD, SIGN OFF
- COMPRESSED C PROTOCOL
  ERROR FREE DATA TRANSFER
  SUPER FAST PROTOCOL
- AUTO DIAL/REDIAL/ANSWER
- UP/DOWN LOADS
- DISK COMMANDS
- AUTO MODE-FILE EDITOR
- CALL WAITING ALARM
- SCREEN DUMPS TO PRINTER
- ALTERNATE PROTOCOLS AVAILABLE

TELE-NET

+++ COMM-TERM II +++

The Ultimate Terminal
Program for the C-64!

Written for Commodore Users by Commodore Users!!!

*** TELE-NET ***

*** COMM-NET ***
Commodore Computer Information Services

DATA LINES

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COMM-TERM II

Have you been looking for a terminal program that can upload and download programs? Maybe even a program that will dial (and answer) your auto-modem? OK, how about one that will give you FULL disk capabilities (like formatting, scratching, initializing, copying files, ect.)? Want more? OK, a terminal package that will allow you to utilize all of the most popular protocols, like X-Modem, Punter 8-Bit, Image, and even the 'state of the art' Compressed C-Protocol (the fastest error-free down/up load system currently available for the C-64)? Still want more? Alright, lets add in an on-screen clock with alarms, Auto-Log on-off, Auto-Operation and Navigate, Word Wrap, CBM and ASCII format, Help Screens, Call-Waiting detect, Capture Buffers, Auto Buffer dumps, screen dumps, and more?

Then COMM-TERM II is the only terminal program you will ever need!!

WARRANTY

TELE-NET, INC. warrants this product to be free of defects and to operate within the specifications stated within this operating manual for a period of (90) ninety days for date of purchase. In the event of failure of this product to perform as stated in this instruction manual, the product should be returned to TELE-NET, INC post-paid along with proof of purchase. A duplicate of this product will be returned to you in the return mail. No other warranties are implied or valid or will be honored. In the event of a product being returned and upon inspection by the manufacturer, the product has malfunctioned due to purchaser misuse or abuse, all warranties expressed or implied are void.

WARRANTY REGISTRATION

To validate the warranty on COMM-TERM II and to be eligible for product update notices it is necessary for you to provide TELE-NET, INC. with the following information:

1) Your name
2) Your address
3) Date of product purchase
4) Place of purchase
5) Disk Name, Serial Number, and ID (on disk header)

Should updates be available in the future, only persons returning the above mentioned information will be provided with product update announcements.

<<<< WARNING - $1000 REWARD >>>>

TELE-NET, INC. will pay a $1000 reward for information leading to the indictment and conviction of any person copying this program for distribution to others either free or for profit. Illegal copying would be in direct violation of Federal copyright laws and will be prosecuted to the fullest extent of the law. Any information forwarded to TELE-NET, INC will be treated with the strictest of confidence. Contact TELE-NET, INC. at (303) 341-4266.

GETTING STARTED

Hardware Requirements:

C-64 Computer
1541 Disk Drive (or equivalent)
Monitor (Monochrome or Color)
Modem (1650 or equivalent)
Printer (optional)

Setting Up:

Start by resetting your computer, drive, and printer, then load COMM-TERM II using this format {load "*",8,1}. The screen will change colors and start loading the 'boot', if your cursor starts flashing, reset the system and reload the program. The program should now be loading and soon you will see the title page and copyright information. Within a few seconds you will be prompted to insert the 'USER DISK', since this is the first time you have run the program, leave the program disk in the drive, then you will be asked if you wish to use the 'DEFAULTS' settings. Enter an 'n' and you will now be allowed to create a customized default file that has your password and ID in it to be used in accessing a host system. The first six prompts you need to answer have to do with the terminal settings, the defaults are the letters or character flashing under the cursor, and the options are highlighted to the right. The pre-established defaults work with most host systems, and to accept these simply enter a return at the flashing cursor. If however you see one or more that require changing, all you need to do is enter the highlighted character listed at the side for that prompt. The second page of settings have to do with the program settings; the printer type, color selections for the border, background, and the cursor; and entering your password and ID into the file for later use when logging on a system (for detailed information on the defaults, see section 9.0.0). After creating the 'DEFAULTS' file you will be taken to the 'MAIN MENU', and as you have noticed by now, this program is completely menu-driven. To select the options and features at any of the menus, use your cursor up/down keys to move the highlighting bar over your choice and then enter a return. At the 'MAIN MENU' you should first go to the 'AUTO MODEM' (see section 2.0.0) option, then select the 'CREATE # FILE' feature to establish a file for your favorite Host system. Once you have established the numbers files you can select the 'EXIT' prompts to return to the 'TERMINAL MODE'. From this point you should start referring to the reference sections of this manual (which are numbered according to their placement on the MAIN MENU') to be able to utilize all of the powerful tools you now have available.

Once you have used 'COMM-TERM II' you will soon find out that it is very simple to use and makes tele-commuting very easy!

1.0.0 TERMINAL MODE

There are several very nice, specialized features available in the TERMINAL MODE to make your Tele-Commuting much more enjoyable. Before we cover some of these features, it would be prudent to cover some of the basics. First, if you are required to send your host system some special control characters to establish operating parameters, they are available directly in the terminal mode by simply holding down the 'CTRL' key and pressing the appropriate character key (for a control 'C', use the 'CTRL' key and the letter 'C' key). Another basic item in the terminal mode is the 'WARNING CHIME', this chime will sound if you are in the ASCII mode and receive a character that is not an ASCII character (in the CBM mode you will not receive this chime, as all characters are accepted). You may also hear this chime if your phone line starts picking up a lot of interference or if you have call-waiting, or you try to transmit a file before you have set-up the file. To clear the screen, use the <shifted clr/home> key, note, if you are in the CBM mode, you will also clear the screen of the other computer! To return to the MAIN MENU from the TERMINAL MODE, simply press <F1>, this sends a 'HALT' signal to the host system, and when you return will send the appropriate character to resume transmission. NOTE: If you do not own an auto-modem, simply go to the Terminal Mode and follow the dialing instructions supplied by the modem manufacturer.

1.1.0 STATUS LINE

The 'STATUS LINE' is located at the top of the screen in the terminal mode. The features present represent some of the most important data that you will require while on-line. NOTE: If you receive several bad 'hits' on your phone line, it could cause the 'STATUS LINE' to scroll off the screen, should this happen, simply enter a shifted <clr/home>. Also note; if you are using the 'CBM' mode and receive a chr$(147) (clr/home) the status line will disappear.

1.1.1 BUFFER STATUS

On the very left-hand side of the screen you will see [BUF O or BUF C or BUF F], this represents the current status of the Capture Buffer, whether 'O' (for open), 'C' (for closed), or 'F' (for full). To activate the Capture Buffer use the <C> (Commodore key) key and the letter 'O' key to open the Buffer, to close the buffer, use the <C> key and the letter 'C' key. When the buffer fills, the buffer will automatically close, sound a chime, and change status to 'F'. To empty (purge) data from the buffer, use <C> and the letter 'E'. To save, read, or print the buffer contents, see the section on the CAPTURE BUFFER. One thing you want to remember when using the capture buffer is that when you open the buffer the data will be recorded starting at the cursor position.

1.1.2 BUFFER CONTENTS

The 'CAPTURE BUFFER' will hold approximately 10K of data, when you open the buffer (see section 1.1.1.) you will see the number of bytes of data currently in the buffer, and you will see the number of characters change as data enters the buffer.

1.1.3 ASCII/CBM

This displays the format that you are operating under in the terminal mode. Most of the time that you are on-line to major information services and BBS you will need to use the 'ASCII' format, this converts incoming ASCII to CBM format which the C-64 recognizes. Should you wish to tele-commute with a service that requires 'CBM' (or PET) format, all you need to do is use the 'F3' key to toggle from one to the other. A major advantage to the 'CBM' format is when you are on-line to another Commodore computer user for the purposes of exchanging the full range of Commodore characters and graphics.

1.1.4 WORD WRAP {on/off}

This feature is exceptionally nice if you spend a lot of time on-line to other computer users. With 'WORD WRAP' it is not necessary for the other computer user to try to format data for your screen width, which may be different from yours. No more need to look at words that get broken at the screen edge, just press the 'F5' key to turn 'WORD WRAP' on or off. Once you have used 'WORD WRAP', you won't know how you ever got along without it!

1.1.5 CARRIER DETECT

The next item on the status line is the 'CARRIER DETECT' indicator (CR P, or CR L). This feature is extremely nice if you have had a great deal of problems with aborts or disconnects while on-line. Once connection is made (either by turning your auto-modem to 'data' or by making connection with your manual modem, refer to the operating instructions supplied with your modem) the status line will show 'CR P', should for some reason the connection be lost the status line will display 'CR L'. NOTE: If you are on-line and have call-waiting and someone is trying to call you the CARRIER DETECT may flash.

1.1.6 CLOCK

The last item on the status line is the 'CLOCK'. This clock displays either the current time (if set at the 'MAIN MENU', see section 8.0.0) or elapsed time since you loaded COMM-TERM II. The time is displayed in world time (5:30 pm = 173000) in HHMMSS format. After setting the clock you will be asked if you wish to set an 'ALARM', if you set the 'ALARM', when the current time is that of the alarm time, the screen border will flash from red to white (this is so the people with monitors without sound will be able to utilize the alarm also). To stop the 'ALARM' once it goes off, simply ust the 'ABORT' (F7) key. Besides the CLOCK on the status line, the time will also be present on each of the other screens (menus and operations).

1.2.1 SCREEN DUMPS (to printer)

Ever have something on the screen that you just can't live without on paper? No problem, just hold down the <C> (Commodore) key and the letter 'P' (for printer) key, and presto, a hard copy of your screen. NOTE: This feature is only available in the 'TERMINAL' mode.

1.2.2 AUTO LOG ON (ID#)

To use the 'AUTO LOG ON' capabilities, it is first necessary to place your 'ID' on your system disk during the 'DEFAULT' settings (refer to section 3.2.3). Once this has been done you may transmit your entire 'ID' via one key-stroke, utilizing the 'F2' key.

1.2.3 AUTO LOG ON (PASSWORD)

As with the 'AUTO LOG ON (ID#)' feature, you must first enter your 'PASSWORD' into the system file during the default set-ups. Once this has been done you can enter your 'PASSWORD' with the pressing of the 'F4' key. Both of these features are very nice if it is necessary for you to use a 10 digit ID and a 12-18 digit PASSWORD. Another bonus of both of these is if you should be demonstrating tele-commuting to someone, they cannot see what your PASSWORD and ID names and numbers are, a real security feature.

1.2.4 ABORT

To use the 'ABORT' function in the 'TERMINAL MODE' simply hold down the 'F7' key, this will abort the 'SCREEN DUMP' and/or the transmission of a sequential file. This key serves the same purpose in other modes listed elsewhere in this manual.

1.2.5 TRANSMIT SEQUENTIAL FILE

To 'TRANSMIT SEQUENTIAL FILE' all you need to do is press the 'F8' key while in the 'TERMINAL MODE'. Prior to transmitting the file it is first necessary to select 'SET FILE TO TRANSMIT' (section 4.0.0) at the 'MAIN MENU' then just follow the instructions given. Please note, there is no error checking when transmitting a sequential file in this format.

2.0.0 AUTO MODEM

For users of auto-dial auto-answer modems, this feature is something that you can't live without! Some of the features include individualized phone files, dialing multiple numbers, connect chimes, and it even will work with most PBX systems. Once most modem users experience working with features like this, it is something that they realize no terminal package is complete without. By selecting 'AUTO MODEM' from the 'MAIN MENU' you are now presented with another screen showing a new list of features available for auto-modem users.

2.1.0 AUTO DIAL (Disk)

This is the default on the 'AUTO MODEM' menu as it is the feature most commonly used. On this screen you will be presented with two options for dialing, plus an 'EXIT' option. If during the 'CREATE # FILE' (explained later) you had created some phone files, you could now select that file by name, turn your modem to 'D'ata, the originate/answer switch to 'O', key in a return, and watch the numbers dial one-by-one until contact is made. Once contact is made, you will hear the connect chimes sound, and you will be returned to the 'TERMINAL MODE', ready to start tele-commuting. To abort dialing, simply enter any key and you will be returned to the 'AUTO MODEM' menu.

2.1.1 AUTO DIAL (Keyboard)

If for one reason or another you do not have a disk with the phone number files yet, or you are dialing a number that may not be used again, you also have the choice of dialing via the keyboard. Once you have made this selection, you will be prompted for up to ten (10) numbers to be dialed automatically. After you have entered the first number, the cursor will be placed in position to enter the next number (the cursor will be flashing over an I), once you have entered all the number(s), just enter a <R> return at the next I, and dialing will start automatically. NOTE: Make sure that you modem is on-line prior to entering the return. Should you after 20 or 30 minutes realize that the number(s) you are calling probably won't be free for awhile, simply enter any key and the dialing will abort and return you to the 'AUTO MODEM' menu where you can select another 'NUMBERS' file, or key in different numbers from the keyboard.

2.1.2 EXIT

If you wish to return to the 'AUTO MODEM' menu, use your cursor up/down keys to select this choice, and enter a return.

2.2.0 AUTO ANSWER

If you have selected this option, the screen would clear, you would have the message 'AUTO ANSWER' at the top of the screen, and a 'WAITING...' message in the center of the screen. At this point, switch your auto-modem to 'A'nswer mode, and the data/phone switch to the 'D'ata mode. When a call is received you will hear the connect chimes, and be automatically returned to the 'TERMINAL MODE'. If however you wish to abort the 'AUTO ANSWER' mode, enter any key and you will be returned to the 'AUTO MODEM' menu.

2.3.0 CREATE NUMBER FILES

This option is the real backbone of the 'AUTO MODEM' section. By selecting this feature you are allowed to create individualized phone files for each of the services that you may access. Once selected, you are prompted to enter the 'NUMBERS FILENAME', this name may be up to 16 characters. For ease of use we recommend that you abbreviate the name, for example; if you access COMM-NET regularly use 'c/n' for the filename, this makes it simplier that trying to remember the complete spelling of the file. This filename will be written to disk as a user file, and will appear on the directory prefixed with a reverse 'n' (for number). After you have entered the filename, the disk will automatically open a channel for writing the numbers. Now you will be prompted to enter the phone numbers for this file. Each file will hold upto ten (10) numbers, upto 65 characters each. The purpose for this length is to allow you to dial long distance (1-303-340-2473), allow you to dial through a PBX system where you need to enter a '9' to get an outside line (9-1-303-340-2473), or you may want to use a long-distance service (service#, acct code, the area code, and the phone number). Another feature implemented in this section, is the capability to 'Pause' while dialing the number. In a PBX system, it may be necessary to dial '9' and wait for a dial tone prior to dialing the rest of the number. To do this you can use the '#' sign to trigger a pause, example; (9-#-340-2473). By utilizing any combination of the features mentioned above, you will have the capabilities of dialing virtually any number available. NOTE: it is not necessary to place a hyphen (-) between the groups of numbers, however it does improve the readability. Once you have keyed in the first number, and terminated it with a return, you will now be prompted for the second number (if needed). If there is more than one number for the service you are accessing, continue to enter each of the numbers that you can use. When you have entered the last number, and you are prompted for the next, just enter a return, and the file will be written off to disk, then you will be returned to the 'AUTO MODEM' menu. By utilizing unique filenames for the phone files, it is possible to have all the files for your services on one disk.

2.4.0 EXIT

To return to the 'MAIN MENU', use the cursor up/down keys to move the highlighter over the 'EXIT' selection, and enter a return.

3.0.0 CAPTURE BUFFER

To access the 'CAPTURE BUFFER' control area, all that is required for you to do is from the 'TERMINAL MODE' enter 'F1', this will take you to the 'MAIN MENU', then using your cursor control keys move the highlighting bar down to the 'CAPTURE BUFFER' selection, and then enter a return <R>. You will immediately see a new menu, which is 'BUFFER', showing you four more options to manipulate your buffer data.

3.1.0 PRINT BUFFER

If you had previously stored data in your buffer while you had been in the 'TERMINAL MODE', you would now have the option to produce a 'hard copy' of your data. Upon selection of this feature, your printer would now start printing automatically. Please note: during the 'SYSTEMS DEFAULT' section it was necessary to first select the type of printer that you will have connected. To abort the printing, hold down the <F7> until printing stops, however any data currently in your printer buffer will continue to print until that buffer is empty. Upon completion of the printing, you will be returned to the 'BUFFER' menu, with the data still in your buffer. The only way to empty (purge) the buffer is to use the <C> (Commodore) key and the 'E' (Empty) key (in the Terminal mode only).

3.2.0 VIEW BUFFER

To view the contents of your capture buffer use your cursor up/down keys to bring the highlighting bar down to this option then enter a return. Once you initiate this function you will see the contents of you buffer on the screen, just as if you were again on-line. To slow down the screen scrolling, hold down the 'CTRL' key, just as you would if you were listing a basic program. To abort this function once it has started, just hold down the 'F7' (abort) key. Once the viewing has been completed or aborted, enter any key to return to the 'BUFFER' menu.

3.3.0 SAVE BUFFER

If you have saved data on-line that you wish to store for later use, you would use the 'SAVE BUFFER' option to write it to disk. To select this feature, use your cursor up/down keys to bring the highlighting bar to this option then enter a return. You will now be prompted for a filename for your data, and it will be written off to disk. NOTE: all data saved with this option will be a sequential file, which can be read by most word-processors, or using the 'DISC ACCESS' feature (section 6.0.0). If the drive was not ready or if the filename already existed, you would receive the appropriate messages. If the file already exists you will be offered the option of replacing the contents, or as in the following section, to 'APPEND FILE'.

3.3.1 APPEND FILE

If you have already saved a file, and wish to add more data to the existing file, we have provided a format to do that. When you are prompted for a filename as in section 2.3.0, simply prefix the filename with a plus (+) sign, example; +filename. This feature will also work with the 'AUTO STORE' function mentioned next.

3.4.0 AUTO STORE

To use the 'AUTO STORE' (or auto buffer dump) feature, again use the cursor control keys, then enter a return. You will now be prompted for a filename of the file you want to save. Enter 'filename', and you will see the message 'AUTO STORE SET, DO NOT TOUCH DRIVE', and you will be returned to the 'TERMINAL MODE'. To start capturing data in the buffer, follow the instructions given in section 1.1.1. The primary advantage of the 'AUTO STORE' feature is if you wish to capture a volume of data that is greater than the size of the capture buffer, each time the buffer fills to capacity, the data will automatically be stored to disk. To close the 'AUTO BUFFER' all that is required is to enter 'F1', and the drive will save the last of the data and close the file. Also note: if you had previously opened the capture buffer, then decided that the volume of data you wish to record was greater in size than the buffer, you could then select this feature, and all of the data could be saved to disk automatically.

3.5.0 EXIT

By selecting this, you will be returned to the 'MAIN MENU' where you can make your choice of any of the other features.

4.0.0 UPLOAD / DOWNLOAD

From the 'MAIN MENU' you select this option just as you would any of the other features of 'COMM-TERM II' by using your up/down cursor control keys. Once you have the highlighted bar over 'UP/DOWN LOAD" simply enter a return and you will now see the 'UPLOAD / DOWNLOAD' menu. You have three options presented to you, to 'RECEIVE' (download) a file, to 'SEND' (upload) a file, and to 'EXIT' back to the 'MAIN MENU'.

4.1.0 RECEIVE (download)

Had you selected to 'RECEIVE' or 'SEND' a file, you would now be prompted for a 'filename' (and 'type', whether it is a Program, Sequential, or User file if you are using CC-PROTOCOL) for your upload or download. Should you have decided to 'DOWNLOAD' a file, once you have entered a filename (and type if necessary) the screen will change, and you will see a message on your screen telling you which protocol you using, and a 'WAITING...' message. At the point 'COMM-TERM II' starts receiving data from the host system, another message will come on the screen, 'RECEIVING...'. If 'COMM-TERM II' does not start receiving data within 20-30 seconds, the download will abort and return you to the 'MAIN MENU'. If transmission had started properly, you would now see a series of diamonds appearing, with each diamond representing a portion of the file. Once it was necessary to use a seperate program to convert data received over the phone lines back to a program file, however as this data is received, it is converted from the protocol it was transmitted as, and is written to disk automatically as a run-ready program (or sequential or user file). When the download is complete you will hear an alarm sound, and you just need to enter any key to return to the 'TERMINAL MODE'. NOTE: You must be using the same protocol as your host system!

4.2.0 SEND (upload)

If you have selected to 'SEND' a program you will now be prompted for the 'filename' (and type for CC-PROTOCOL) of the file you wish to transmit. The filename is just as it appears on your disk directory, however pattern matching is allowed. After you have entered this information, the screen will change, and you will see a message stating the protocol type you are using. The disk drive will now start up, the file will be read into memory and converted automatically to the protocol you had selected to use (the default is CC-PROTOCOL, however you can change to any of the the other available protocols listed in section 10.0.0). Once the actual transmission has started, you will see a series of '+', '-', and '?'

appear. When you are using an error-checking protocol each one of these characters has a specific meaning. The '+' tells you a piece of data was sent and received OK, a '-' means that the data was bad or interrupted and will be re-sent, and the '?' says that the line received by the downloading system was not understood and must be re-sent. When the upload is complete a message showing the status of upload (aborted or complete) will appear on the screen, then you will return to the 'TERMINAL MODE' by entering any key.

4.3.0 EXIT

By selecting this option you can return to the 'MAIN MENU' where you can make other selections to satisfy your requirements.

5.0.0 DISK ACCESS

The next choice at the 'MAIN MENU' is for 'DISK ACCESS'. When you select this option, you will see another menu for accessing the disk and the drive. The new screen will say 'DISK ACCESS MENU' at the top, and will offer you four choices.

5.1.0 LIST DIRECTORY

The first option that you can select by using your cursor up/down keys is for listing the directory. Just by entering a return this option is selected, the screen will clear, and you will see the files and programs, as well as block sizes and file types listed to the screen. Once the screen has filled, you will see a message to 'Return to Continue', for the next page of directory contents. With this feature, you don't have to worry about the file you are looking for zooming by before you can find it. To abort the screen listing of the directory contents, simply enter the abort key <F7>. To return to the 'DISK ACCESS MENU' at this point, or when the entire contents have been examined, simply enter any key. NOTE: Upon completion of the directory listing or at the end of each screen page you could hit the space bar and a '>' symbol would appear at the top of the screen allowing you to do any disk functions you need to do while the directory is still on the screen. For a full explanation see the following section on 'DISK COMMANDS'. If you don't have a need for disk commands at this point simply enter a return.

5.2.0 DISK COMMANDS

Often it is necessary to do 'housekeeping' on your disks. By selecting this option you have the capabilities of 'Newing' (format) a disk, 'Validating', 'Initializing', 'Scratching', and many other disk functions. If you had selected to utilize the 'DISK COMMANDS' you would now see a 'greater than' (>) symbol on the left hand side of the screen about a quarter of the way down. For use of this feature, simply enter the short-cut commands (as found in your drive manual) this way; >S:filename, for scratching a file, or >V: for validate, or >I: for initializing the disk. All the other disk commands are also available in this mode. To exit from the 'DISK COMMANDS' mode simply enter a return at the prompt.

5.3.0 ACCESS A FILE

Upon selecting this feature, you can now take the information you have saved while on-line, or with a text editor, then stored on your disk, to produce a hard-copy on your printer, or you can read it on the screen. First you will be asked for a 'filename' and a 'type'. The filename must be entered as it appears on the disk directory, or may be pattern matched with the '*' or '?' characters. The file type is either Sequential or User files. Your next prompt is whether you wish 'ASCII' conversion or not. If the file in question was one that you saved while on-line and you were in the 'ASCII' mode, you would not want to use the conversion process. If however, you had been communicating in the 'CBM' mode, you will need the conversion. Now on the screen there is an output prompt, to Screen or Printer. By entering the letter 'S' you would see the file printed to the screen just as it appeared while on-line. To slow down the screen scrolling, hold down the 'CTRL' key, and to abort the output to screen, use the 'ABORT' key <F7>. Had you selected 'P' option, your printer would have fired up and started printing the file, again to abort the output to printer, use the 'ABORT' key <F7>. To return to the 'DISK ACCESS MENU' upon the completion of the output, all that is required is to enter any key.

5.4.0 AUTO BOOT

The only way to end 'COMM-TERM II' (other than turning the computer off) is to use the 'AUTO BOOT' feature presented here. By selecting this you will be prompted for the name of the next program you wish to load and run. COMM-TERM II will clear itself from memory, then load and run the program that you entered.

6.0.0 AUTO OPERATION

This is one of the nicest features of 'COMM-TERM II', even without this feature you can do more things than most terminal programs ever thought about doing, but we now can do most of these things without even being present! AUTO OPERATION will allow you to dial your host system, log-on for you, open and close your capture buffer, save these files to disk, download AND upload programs and files, and even log-off upon completion. You can also create more than one file, and have the first file load and operate the second file at a later time!! Does this sound complicated? Well, its not! Before you try using the AUTO OPERATION FEATURE, run the program and establish your default settings (see GETTING STARTED), then call your host system, open your capture buffer, and record all the prompts you normally receive to navigate through the system. Save these to disk and then use the DISK ACCESS function (section 6.0.0) to produce a hard copy of the screens that you have received. This will soon be a very important item for you to work with to establish the AUTO OPERATION files. In the following sections we'll show you how to create, edit, load, save, and run the files needed for the proper operation of AUTO OPERATION. Furthermore I am going to make some examples for the service that I commonly use, the commands that I respond to may not be the exact same commands on the system you utilize, but the principle will be the same. NOTE: while in the AUTO OPERATION mode, there will not be a clock present on the screen while the system is on-line.

6.1.0 EDIT FILE

Once you have selected AUTO OPERATION at the MAIN MENU, you will now see the choices for the operation of this feature. The first choice is to EDIT FILE (or create a file if there is not one currently in memory). By selecting this function, you will now be prompted for the 'START TIME' of the file. Enter this in world time format just as if you were setting the clock for the status line. The next piece of required information is that of the phone number or number file. If you have the number file already on disk, all you need to do is enter the filename. If you don't have the number on disk, simply key in the number to dial. The third option is to answer the phone, to tell the program that you wish it to do this, enter the British Pound Sterling sign at the prompt.

Now you will see the screen change, and a series of [ ] appear along the left side of the screen. There are three pages of these boxes (for a total of 66 command lines) and will hold all of the commands that you can use for the operation of the menu file. The following are the commands that you have available:

P - For Prompt, must be followed by the expected prompt.
S - For Send, must be followed by the information to send.

T - For Terminal Command, must then be followed by that command.

B - To perform a Buffer command, must first go to Main Menu (F1).

F - Set sequential file to transmit, again must first go to Main Menu.

U - To perform a up/down load, must first go to Main Menu.

G - To return to the Terminal mode after performing Buffer saves.

L - If you want to 'L'ink files together (max 2)

As you can see there are only eight line commands that you have to use to perform all the functions that you can do with the AUTO OPERATION feature. By using the commands mentioned and the other features that you would normally use in the terminal mode, you can custom tailor an operation file that can do almost everything that you would normally do on-line. Some examples are:

[terc] F2 (this will send your ID)

[terc] c=o (terminal command, will open capture buffer)

[terc] c=c (terminal command, will close buffer)

[terc] F1 (will take you to Main Menu)

[bufc] sav filename,s (Buffer Command, will save filename, and type)

[bufc] aut filename,type (Auto Store Buffer Command)

[gter] only required after buffer saves, will return you to Terminal Mode

[file] filename,type (set file to transmit, sent by <F8> in terminal mode)

[u/dl] rec filename,type (will download files and save to disk)

[u/dl] sen filename,type (will upload from disk and transmit file.

To use the AUTO OPERATION, you need to be familiar with the operation of 'COMM-TERM II' to begin with. The operation is the same, and the procedures for performing certain operations are identical. EXAMPLE: if you are on-line and wish to download a program, first you must enter <F1> to take you to the Main Menu, here you select to UP/DOWN LOAD, then you specify whether to receive or send a file. The same procedure is used for the AUTO OPERATION.

Now we are going to start creating a file for AUTO OPERATION. As mentioned earlier, you will need a copy of the menues and prompts from your host system. I will create a file for the system I normally use, you can create one for your system. While the systems may differ, the procedures will be similar.

The first two things we have already done (set start time and numbers to dial). You should now be at the screen that has the boxes on the left side. Notice the arrow pointing to the top box, to move the arrow use your cursor up/down keys, now return the arrow to the top box on page 1. The first thing that I see when connection is made with the host system I use is 'Please Hit Return!>'. This is a prompt from the system to do something, so the first thing I want my file to do is to look for this prompt. To do this enter the letter 'p', and you will see the letters 'prom' appear in the box. This will tell the file to look for a prompt first thing. Now we need to tell the file to look for this prompt, and we can do this by entering 'Return!>' at the flashing cursor.

NOTE: #1: Proper spelling is critical, uppercase letters must be in uppercase for the file to recognize the prompt. #2: You can use up to 20 characters on the prompt line (i.e. Please Hit Return!>), however it is not necessary to use that many character usually. I try to place just enough characters on the line to make it readable.

The first line should now look like this:

```
{prom} Return!>        (Rem: waiting for this prompt)
```

Now we need to send a return to the host system to establish contact. We do this by sending a control M (for a return) by first pressing the letter 'S' at the next box, then pressing the up-arrow and the letter 'm'. Note: all control characters will be preceeded with an up arrow, and function keys and control keys will be followed with an underscore. Now our next line will look like this:

```
{send} Im          (Rem: sending a return)
```

The next prompt from the host system is:
IDENTIFICATION PLEASE?
Enter PUBLIC If Not A Member! ID>

Now I want the file to look for another prompt (do this by entering another letter 'p' at the third box) and specific letters. I want to look for the 'ID>' characters, so I enter those just as they will be printed to the screen. EXAMPLE:

```
{prom} ID>             (Rem: Waiting for this prompt)
```

At this point it is necessary to send my ID to the host system, this is done by using the terminal command <F2> if you have placed your identification in the default file during setting up 'COMM-TERM II'. To use a terminal command, just press the letter 't'. To utilize the function keys all that is necessary is to press the appropriate key. EXAMPLE:

```
{terc} f2              (Rem: Sending ID name)
```

I have now sent to the host system my identification, and it will check the status for access, and once approved will process me into the system.

At this point I have created the file to log onto a host system, a part of a file that will be used repeatedly. To save the time of re-keying this each time when creating a AUTO OPERATION file, lets go ahead and save this portion of the file. To exit the EDIT mode enter the <F1> key. You will now be returned to the AUTO OPERATION MENU, and by using the cursor up/down keys, select the SAVE FILE option. Simply enter the filename when prompted and the file will be written to the disk as a user file.

To return to the file we were working on select the EDIT choice, and you will see the file we were working on is still in memory. The arrow is now pointing to the top line of the file, to continue adding to the file, use the cursor down key to bring the arrow down to the first empty box.

Before we continue it would be prudent to tell you of the powerful editing commands that you have available to make any corrections or changes. These are as follows:

<CRSR UP>	This will move the command line arrow up one line at a time. If at top line will take you to next page.
<CRSR DOWN>	Will move the arrow down one line at a time, will take you to next page if at bottom of screen.
<CRSR RIGHT>	This will allow you to edit any prompt, send, or other text after a command. NOTE: You won't be allowed to edit a blank line.
<CRSR LEFT>	This will move the cursor to the previous character in the line of text you are editing.
<HOME>	Will place the pointer at the top of a page of commands. Note: if you are editing a command line and use this function, it will return you to the start of the line.
<CLR/HOME>	This function will move the pointer to the bottom of the page. NOTE: if you are in the process of editing a line, this function will take you to the end of the command line.
<DEL>	In the command mode this will delete the line that the pointer is referring to, if used while editing a line it will delete one character.
<INST/DEL>	Can be used in the editing mode only, will erase all text, and return the cursor to the beginning of the line.
<SHIFT/I>	To insert extra lines between command lines. You will be asked for the number of lines to insert starting at the current pointers position.
<SHIFT/D>	To delete command lines or blank lines between commands. Once selected you will be prompted for the number of lines to delete starting at the current pointers position.

With all of these powerful editing commands it is very easy to correct any errors you might make, or modify any files that you have created. Now with all of these fresh in mind, lets continue to develop a file to do your bidding. Lets say that since we are now logged onto the system, we want to open a capture buffer to record any messages or new information posted by the host system. We would now want to place the command line pointer at the first blank line and enter the letter 't' for terminal command. Since we have told the program we want to do something in the terminal mode, we now need to tell it what to do. To open the capture buffer, enter 'c=o' at the flashing cursor. This line should now look like this:

```
{terc} c=o          (Rem: opens buffer)
```

After the system messages have been sent, we will be sent a '(D)irectory or Command>' prompt. We now need to add another prompt to our file. EXAMPLE:

```
{prom} Command>       (Rem: Waiting for this prompt)
```

At this point we can select the database we need to access, be it the download, upload, or any of the other bulletin boards. Once the prompt has been received, all we need to do is tell the file which way to proceed. Lets select to scan the listing of downloads currently available. To do this on 'COMM-NET' you will need to send the letter 'j' for the listing (remember, the capture buffer is still open). This line should now look like this:

```
{send} j              (Rem: specifying database)
```

Now we have specified which database that we wanted to look at, and with the capture buffer open, are recording this data for later reference. At the point that the host has sent the entire listing of programs and files available, it will then need to know where we want to proceed from here and will send the '(D)irectory or Command>' prompt. We now need to tell the file to look for this prompt just as we have before. We will do this by adding a new prompt command to the existing file.

```
{prom} Command>     (Rem: waiting for prompt)
```

At this point we have captured the listing of files available, we want to close the buffer, then pick a specific database where we will download a program. To close the capture buffer enter the letter 't' at the next available box on the file we have been creating, then enter the command 'c=c' at the flashing cursor. What we have done is sent a terminal command, and at this command we told the program to close the capture buffer. At this point we won't save the buffer as we may want to add more to it. These lines will look like this:

```
{terc} c=c        (Rem: closes buffer)
{send} v          (Rem: database to visit)
```

As you can see the buffer is now closed, and we also selected the area of the service reserved for uploads, downloads special information and documentation. Now we will be prompted for which section of this database to use, again the '(D)irectory or Command>' prompt is used. We will respond to this prompt the same as the others with this format, and then tell the host which area that we want to use. EXAMPLE:

```
{prom} Command>   (Rem: next prompt)
{send} v2         (Rem: area to access)
```

At this point we have selected which database to access, we will be sent another prompt wanting to know which file or program we will want to download. The prompt says 'Download Selection or Command>', so we'll set the prompt to look for 'Command>', and then we'll send the file number of our choice (B121). These lines will look like this:

```
{prom} Command>   (Rem: next prompt)
{send} B121       (Rem: download choice)
```

Now we have selected the program to download, the host will send some information concerning the procedure for some limited terminal programs to use, then will send the prompt that ends with 'ON!', which we need to look for. EXAMPLE:

```
{prom} ON!
```

At which point we will tell our file to go to the 'MAIN MENU', select downloads/uploads (use the letter 'U'), and provide filename and type (where necessary). These two lines will look this way:

```
{terc} F1               (Rem: go to Main Menu)
{u/dl} rec filename,type  (Rem: download)
```

The disk drive will engage, the screen will start filling with diamonds as the program is received, and the data will be saved to the disk. Upon completion of the download the drive will close the file, and the host system will send another message. The last line of the message will be 'HIT (M) FOR MENU', and we want the file to look for the 'FOR MENU' part of the message, so we'll establish that prompt, then save our capture buffer. To do so we will enter these lines:

```
{prom} MENU       (Rem: looking for this prompt)
{terc} F1         (Rem: go to MAIN MENU)
{bufc} sav test,s (or u)  (Rem: saving capture buffer)
```

Now we can log-off the system by sending the <F6> just as if we were on-line ourselves, but first we must return to the terminal to send terminal commands. We do this by entering the next command:

```
[gter]              (Rem: Go to terminal
[terc] F6           (Rem: Log off)
```

Presto, our file is complete, we logged on, read and recorded the listing of downloads, downloaded a program, saved our capture buffer, and then logged of the system. At first this may seem complex, but it is really not, it is just the same as if your were answering the prompts directly, and specifying what you wanted to do, the only difference is that this takes a little prior planning.

Now there is one neat little feature that has not been discussed yet, linking files. The ability to have a file start up and run on its own is very unusual, but how about one file loading another and running it? After you have worked with the AUTO OPERATION feature enough to get familiar with it, create another file to log on a system to download or upload, or just to open the capture buffer and read some bulletin boards. Lets name this new file 'log 2'. Remember, with this new file it was also required to enter a number file for dialing, and a time to start. Now we will take the file we created first, load it into memory and edit it with the following information:

```
[link] log 2
```

This has to be the very last line of commands to operate. Now save the first file to disk, then select to 'EXECUTE A FILE' and enter the filename of the first file we created. Upon completion of the first files operation, it will automatically load 'log 2' into memory, and when the time is reached that you had specified for the 'start time' of that file, it will start running! It is very possible to set-up one file in the morning before you go to work, set it to start a 090000 hrs, and have it linked to a second file that will start operation at 235000 hrs that night! All without intervention! The limitation of linking files is that of two files at one time.

Following are some examples of some of the other functions you can perform:

[bufc] aut filename,type (Rem: this is the AUTo-store feature, just like the one you use when you are operating the terminal program. The type of file is either sequential or user. You will automatically be returned to the terminal mode after setting this up. Note: to complete the writing to disk, send [terc] F1 (just like in the terminal mode).

[u/dl] sen filename, type (as necessary) (Rem: this is the format for SENding a program (or file) from the UP/DOWN

LOAD menu.
[terc] F8   (Rem: this will transmit a sequential file if it has been set up in the 'FILE TRANSMIT' section.

If you had entered all of the commands as outlined earlier, your file should look like this:

```
[prom] Return!>
[send] Im
[prom] ID>
[terc] f2
[terc] c=o
[prom] Command>
[send] j
[prom] Command>
[terc] c=c
[send] v
[prom] Command>
[send] v2
[prom] Command>
[send] B121
[terc] F1
[u/dl] rec filename,type
[prom] MENU
[terc] F1
[bufc] sav test,s (or u)
[gter]
[terc] F6
[link] log 2
```

Save this file, and when you need to use this feature, it is easier to load and modify (using the editing features) a file than it is to start fresh each time.

6.2.0 LOAD A FILE

Once you have initially created files and saved them to the disk, it is very easy to load them back into memory to edit, modify, or expand upon them. By just using your cursor up/down keys at the 'AUTO OPERATION' menu, select 'LOAD A FILE' and you will be prompted for the filename. Once the file has been read into memory, select the 'EDIT' feature to be able to do the required changes. NOTE: all files for auto operation are written to disk as User files, and the filename on the disk directory will be preceeded with an inverse letter 'l' (for log).

6.3.0 SAVE A FILE

Saving a file is very simple to do, just select this feature with the cursor keys and enter a return, and you will be prompted for a filename of the log you want to save. These logs are all saved as user files to disk, and on the directory will be preceeded with an inverse letter 'l' (for log). You are not required to prefix the filename with this character as it is set-up for logs only. This way you can have a phone numbers file of 'c/n' (for COMM-NET which will be preceeded with an inverse 'n' on the directory), and a log for AUTO OPERATION with the same filename (c/n) and the program will automatically select the appropriate file.

6.4.0 EXECUTE A FILE

This is the easiest part of the 'AUTO OPERATION' system. Prior to selecting this feature it is important to first set the 'CLOCK' at the 'MAIN MENU' if you haven't already. Once the clock has been set, then select to 'EXECUTE A FILE', and you will see the screen change and a message telling you AUTO OPERATION is engaged, and to enter a return to abort. Now is the time to turn your modem on, and let the system operate itself. NOTE: If when you created the log you had made a mistake with a prompt or command, then the system went on-line and it started looking for a prompt that didn't exist, your host would terminate the connection after just a few minutes and the screen would show a 'CARRIER LOST' message. When the log has completed successful operation there will be a 'AUTO LOG END, OK' message left on the screen, then to regain control of the program, simply enter any key and the program will re-boot. Also note, while in AUTO OPERATION the keyboard has been disabled to prevent unwanted keys from accidentially being pressed and placed in the keyboard buffer. The first few times that you use the auto operation features, it is a good idea to sit and watch the log perform, just to make sure that you had done everything properly. After awhile you will probably find yourself doing the same thing that a lot of us do once we became familiar with AUTO OPERATION, instead of sitting at the terminal and manually responding to each prompt, we establish a log so we can be doing other things while 'COMM-TERM II' is doing the work of uploading, downloading, capturing screens, or transmitting sequential files.

6.5.0 EXIT

The last selection to be made at this menu is to exit back to the MAIN MENU. Again this can be done using your cursor control keys.

7.0.0 SET FILE TO TRANSMIT

This is a very handy feature of 'COMM-TERM II'. By selecting this option you will be prompted for a 'Filename' and a 'Type' of file. The filename is as it appears on the disk directory, or you may use the '?' and '*' characters for pattern matching. The type of file can be either a Sequential file, or a User file. Once you have entered this data you will see a message 'DRIVE SET TO TRANSMIT, DO NOT DISTURB'. Now from the terminal mode all that is required for you to do is enter <F8> to start transmitting the file, it will stay stored until you need it. NOTE; you should first make contact with the other system prior to setting up the transmit file.

8.0.0 SET CLOCK

When COMM-TERM II is first powered up the clock is reset to '000000', and starts running from that point. Some people leave the clock as is so that they may see the elapsed time, however if you wish to reset the clock to the current time (a necessity for AUTO-OPERATION), select this option from the MAIN MENU. You will now be prompted to enter the time in world format (HHMMSS), an example is 5:30 pm, would be entered as 173000 hrs, 8:45 am would be 084500 hrs and 12:00 noon would be 120000 hrs. Upon completion of setting the clock, you will be asked if you wish to set an 'ALARM'. If you select to set the alarm, when the time you set the alarm for is reached, the border of the screen will alternately flash red and white until the ABORT key <F7> is pressed. Upon setting the clock and alarm, you will be returned to the MAIN MENU.

9.0.0 SET SYSTEM DEFAULTS

To select the 'SET SYSTEMS DEFAULT' menu use your cursor up/down key until the highlighting bar is over your selection, then enter a return, and you will be taken to the next menu listing the terminal and program settings you can modify to suit your needs.

9.1.0 TERMINAL SETTINGS

From this menu you can select the parameters to control the terminal operation. Certain operating choices have been pre-determined, however these can all be changed to adapt to your specific requirements. The following are the operating parameters that can be controlled via 'COMM-TERM II'

9.1.1 BAUD RATE

Baud rate is the speed that data can be transferred (900 baud is approximately 90 character/second). Default on 'COMM-TERM II' baud rate is 900, which is the standard rate most modems use. Should this be the rate you require, simply enter a return. If your modem, and the host service, have the capabilities to operate at a higher or lower rate, you may select it by entering it directly at the prompt. Remember, the baud rate you select MUST be the same as the host system you wish to contact. The other options that you have are 150, 600, and 1200 baud.

9.1.2 WORD LENGTH

Default on 'WORD LENGTH' is 8 bit, which is commonly used with most BBS's and information services. To accept 8-bit, again just enter <R> return. Should it be necessary to utilize a different format, simply key in the number at the prompt. The other options at this prompt are 7, 6, and 5 bit word length.

9.1.3 STOP BITS

You have two choices for this selection, default on 'STOP BITS' is one (1) bit. To accept the default, all you need to do is enter a <R> return. The other option for this is two (2) bits, to use this, enter '2' at the prompt.

9.1.4 DUPLEX SETTINGS

There are only two choices for your duplex settings, 'FULL' or 'HALF' duplex. When working with an information or BBS service, you will normally want to use the 'FULL' duplex setting (the default), by only keying in a return. The primary time to use 'HALF' duplex settings is when you are on-line to another computer user. To enter the 'HALF' duplex setting, enter 'H' at the prompt. In the full duplex setting, the characters you key in are NOT directly printed to your screen, they are first transmitted to the host system, then 'reflected' back to your screen. In the half duplex mode, when you enter a key it is printed directly to your screen and simultaneously transmitted to the receiving computer. NOTE: Both systems (or computers) should be utilizing the same duplex settings.

9.1.5 HANDSHAKE

Normally you will want to use the '9' line, to do so just enter a <R> return at the prompt, if it is necessary for you to use the 'X' line, key in the letter 'X' at the prompt.

9.1.6 PARITY

You have several choices you can use for your parity settings. Parity stands for the number of "on" bits in each character. 'NON' parity does not check this. 'EVEN' parity, the total number of "on" bits should be an even number. 'ODD' parity, the total number of "on" bits will be an odd number. 'MARK' parity, leaves the highest bit "on", and 'SPACE' parity leaves the highest bit "off". Default on COMM-TERM II is 'NON' parity, and this is accepted by entering a return at the prompt, to accept any other choice all that is required is to enter the highlighted letter of the parity type and a return at the prompt. Please note that selecting the wrong parity may cause you to receive some strange characters.

9.2.0 PROGRAM SETTING

After you have entered all of your terminal settings, you now have the options of establishing some of the parameters to make the operation of 'COMM-TERM II' easier for you.

9.2.1 PRINTER TYPE

You have two choices here, 'CBM' or 'ASCII' with the default being 'C' for 'CBM'. If you own a 1525-E, 1526, MPS-801, or an MPS-802 or any printer that emmulates a Commodore printer simply enter a return at the prompt. Should you possess a printer that does not emmulate a Commodore printer, just enter an 'A' and a return at the prompt. NOTE: Should you select a printer function later and the printer is not operational, you will be asked if you wish to bring it on-line. [EXCEPTION: You will NOT be prompted for the printer if you try doing a screen dump when the printer is not working.

9.2.2 CHANGE COLORS

At this prompt you are asked if you wish to change the format of the screen colors. You can accept the default of 'N' to keep the colors you currently have on the screen, or you may enter a 'Y' to select colors more to your liking. Prior to going to the screen to change the colors you must first answer the prompt for 'CHANGE ID INFORMATION', section 9.2.9.

9.2.2.1 COLOR FORMAT

Had you selected a change of color format in section 9.2.2, and answered the ID prompts in section 9.2.9, you would now be able to select the actual colors you want for the Border, Background, and Characters. You use the 'F1' key to change the Border color, the 'F9' key to change the Background color, and the 'F5' key to change the character colors. Each time you press one of these keys the color will change, offering you all 16 colors for each key.

9.2.3 CHANGE ID INFORMATION

By entering a 'Y' at this prompt you have the option of changing your user Password and ID name for your host systems. We recommend that you place your appropriate Password and ID on a dedicated disk for each one of the services you utilize. By establishing a disk for each service, you have the capability of 'Custom-Tailoring' your operating parameters for each service that you use. If the data in the systems file does not require changing at this point, simply enter a 'RETURN' at the prompt. Had you entered a 'Y' at the prompt, and had already selected your screen colors, you would now be at the 'NEW ID' screen. The first prompt on the screen is for your 'ID'. This 'ID' may be up to 92 characters in length, and may include any ASCII character. The next piece of requested information is for your 'PASSWORD'. Again, the 'PASSWORD' may be up to 92 characters in length, and may contain any ASCII characters. The last piece of required data is your systems 'LOG OFF'. Some services require commands like 'OFF' or 'BYE' to log off, you have however, the ability again to utilize up to 92 characters as needed. To transmit your 'ID' the 'F2' key will be used, for your 'PASSWORD' the 'F4' key, and for your 'LOG OFF' the 'F6' key. For information on how to utilize these functions, refer to the 'TERMINAL MODE' section.

Upon completing the 'SYSTEMS DEFAULT' section, you will automatically be taken to the 'MAIN MENU'.

10.0.0 CHANGE PROTOCOL

Tired of trying to access a system only to find out that you don't have a terminal program that is compatible with their upload / download protocol? Do you access several different systems and have to keep changing terminal programs to match the type of protocol they use? Or even better yet, do you live in an area with poor phone lines and pick up a great deal of interference on the line? Following are the protocols you have available in 'COMM-TERM II' to help with these problems. To select any one of these options, simply use your cursor up/down keys to move the highlighting bar over your choice, then enter a return.

10.1.0 CC-PROTOCOL

'CC-PROTOCOL' (developed and licensed by TELE-NET) is the fastest 'Error Free' terminal protocol on the market for the C-64. This protocol is 200%+ faster than C-PROTOCOL and 30-50% faster than Punter 8-Bit, AND CC-PROTOCOL will also allow you send and receive not only program files, but it will also allow the transfer of sequential (text) and user files in an Error-Free format. CC-PROTOCOL furthermore has the added capabilities of 'seeing through' call-waiting and line noise upto 20 seconds in duration. NOTE: CC-PROTOCOLS are only Error-Free when up/down loading from an CC-PROTOCOL host, or another computer utilizing CC-PROTOCOL via COMM-TERM II. When 'COMM-TERM II' is loaded and run, CC-PROTOCOL is automatically loaded into memory, therefore you won't need to select this protocol unless you had previously selected another protocol.

10.2.0 IMAGE

This is the protocol that a majority of the BBS's and information services offer. An IMAGE file is a sequential file that contains character representations of hexidecimal numbers derived from a program file. Once it was necessary to use your capture buffers to download a program (IMAGE) file, then use a conversion program to change the file back to a real program file, not any more!! When using this protocol there aren't any error capabilities, however unless you have noisy phone lines this shouldn't cause you any major problems.

10.3.0 8-BIT

Another of the alternate load included in this program is compatible with many of the major BBS's using the PUNTER 8-BIT protocol. It does provide error checking, and is one of the faster up/down load protocols. As with IMAGE, this protocol does not allow you to send any files other than program. When using this protocol, programs will automatically be written to disk as run-ready programs.

10.4.0 X-MODEM

X-MODEM is an error-checking format when used with an X-MODEM host system or computer. Most of the major information systems offer this as one of the up/down load protocols. As with the other protocols, as programs are received, they will automatically be written to disk as complete run-ready programs. Like 8-Bit and Image, this protocol only allows the transmission of program files.

10.5.0 OTHER

This selection will be used at a later date for various other features.

10.6.0 EXIT

To exit from the UP/DOWN menu, just move the highlighted bar down to the 'EXIT' option, and enter a <R> (return). You will now be returned to the 'MAIN MENU'.

11.0.0 HELP

If you get into trouble and cannot find the operating manual for COMM-TERM II, you can get brief instructions and help by returning to the MAIN MENU and selecting the last option. On the screen you will now be able to find some basic information to help you out of a jam. You can also get a print out of the help screen by using the 'File Access' option at the 'DISK ACCESS' menu. You can call up the file by using [?elp,u] as the name and the type, then you can output it to the printer.

SYSTEM MENUS AND DEFAULTS

The following are the choices that you have at the MAIN MENU.

- The Terminal
- Auto Modem
- Capture Buffer
- Upload / Download
- Disk Access
- Auto Operation
- Set File To Transmit
- Set Clock
- Set System Defaults
- Change Protocol
- Help

Choices available at the BUFFER MENU include:

- Print Buffer
- View Buffer
- Save Buffer
- Auto Store
- Exit

The System Defaults for the Terminal and Program:

- 300 Baud
- 8 Bit Word Length
- 1 Stop Bit
- Full Duplex
- 3 Line Handshake
- Non-Parity (Disabled)
- CBM Printer
- Current Colors
- Current ID Information

Choices from the Change Protocol Menu include:

- CC-Protocol
- Image
- Punter 8-Bit
- X-Modem
- Other
- Exit

Selections at the Upload / Download Menu

- Receive
- Send
- Exit

Option available from the Disk Access Menu:

List Directory
Disk Commands
Access a File
Auto Boot
Exit

Auto Modem Menu features:

Auto Dial
Auto Answer
Create # Files
Exit

Choices available from the Auto Navigate Menu are:

Clear Buffer
Load Menu File
Save Buffer
Edit Buffer
Run A File
Exit

The Function Keys have the following uses:

F1-Return to Main Menu (from terminal mode)
F2-*Your ID
F3-ASCII/CBM Format Toggle
F4-*Your Password
F5-Word Wrap Toggle
F6-*Your Log-off
F7-Abort
F8-Transmit Sequential File

Other Special Purpose Keys:

Commodore key and 'O'	Open Buffer
Commodore key and 'C'	Close Buffer
Commodore key and 'E'	Empty Buffer
Commodore key and 'P'	Print Screen

Note: Items preceded with an * require you to enter this information during Systems Default.

NOTES • NOTAS

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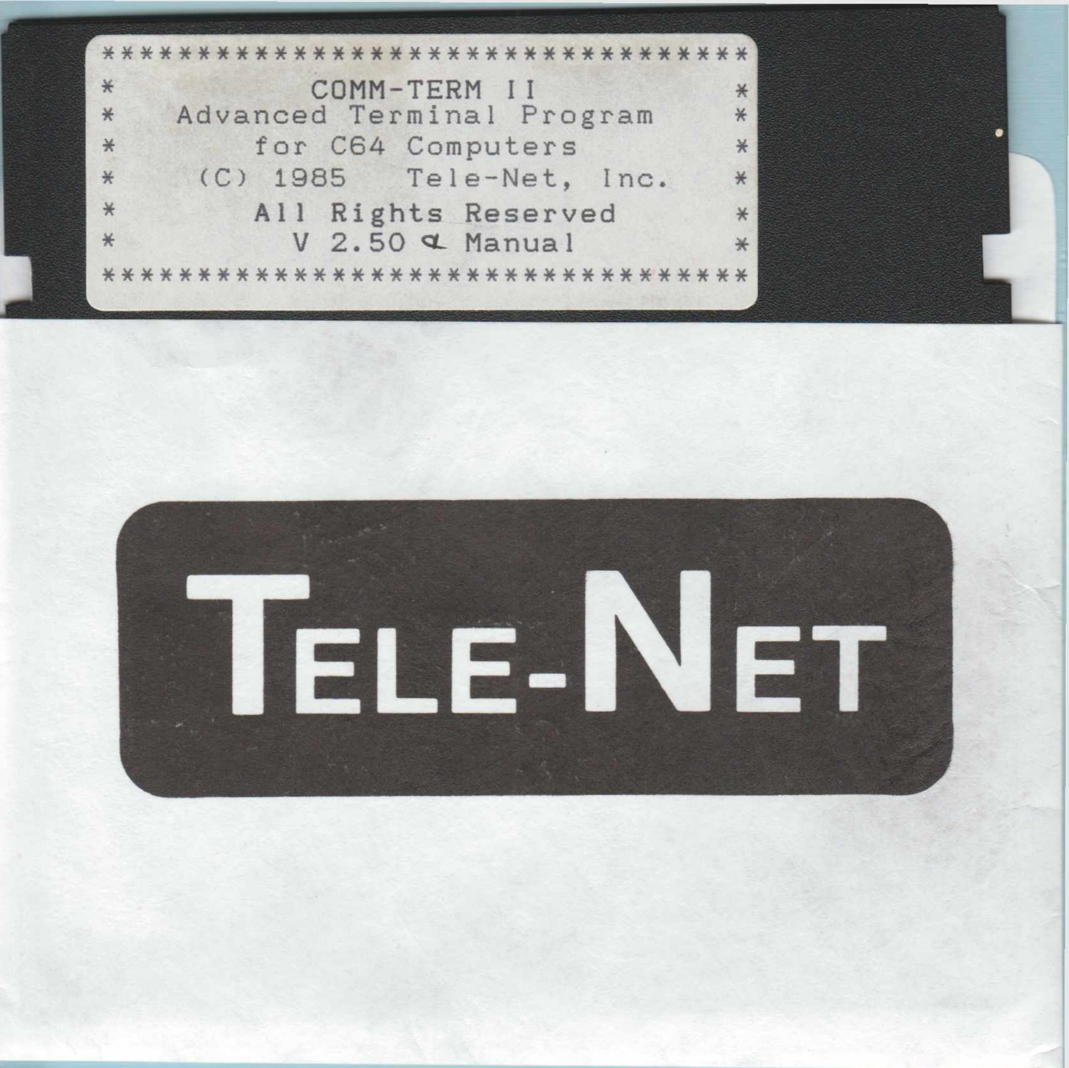

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*   COMM-TERM II   *
*   Advanced Terminal Program   *
*   for C64 Computers   *
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